# UNITED STATES OF AMERICA DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION RENTON, WASHINGTON 98055-4056

In the matter of the petition of

#### **United Parcel Service**

Regulatory Docket No. 28380

for an exemption from various Federal Aviation Regulations

#### PARTIAL GRANT OF EXEMPTION

By letter dated October 19, 1995, Mr. Tony McBride, Manager, Quality Assurance, United Parcel Service, 1400 North Hurstbourne Pkwy., Louisville, KY 40223, petitioned for certain one-time exemptions, for a single flight only, for the purpose of permitting an additional five supernumeraries from the five that are currently allowed on the upper deck only by Exemption No. 1870D, in order to tend to the needs of a whale on the main deck cargo compartment during transport on a Boeing 747-100 aircraft from Mexico City to Oregon.

#### **Affected Sections of the FAR:**

Section 25.791 provides construction and visibility standards for "No Smoking" and "Fasten Seat Belt" signs.

Section 25.810 prescribes the requirements for emergency evacuation assist means.

Section 25.812 provides certain design and illumination criteria for emergency lighting.

Section 25.857(e) requires that a Class E cargo compartment is one on airplanes used only for the carriage of cargo, and specifies certain characteristics of that compartment.

ANM-96-006-E

Section 25.1447(c)(1) requires, in pertinent part, that oxygen masks must be automatically deployed, immediately available to each seated occupant, and must exceed in number the quantity of seats by 10%, with the extra units distributed evenly throughout the cabin.

## The petitioner's supportive information is as follows:

United Parcel Service (UPS) respectfully petitions for a one-time exemption to various sections of parts 25 and 121 of the Federal Aviation Regulations (FAR) for the express purpose of transporting a whale from Mexico City to Portland, Oregon, in a UPS-operated Boeing 747-100. Given the provisions listed in § 11.25, UPS will show in the following sections that this petition is in the best interest of the public, and that more than adequate measures are taken to ensure that safety is not compromised in any way. United Parcel Service also humbly requests an expeditious approval of this petition, and that the FAA forego the period for public comment. United Parcel Service would like to make a commitment to the Oregon Coast Aquarium, and our ability to accommodate the aquarium in this mission is contingent upon the expeditious approval of this petition. The scope is limited to this one charitable flight, and as such, lends itself to an abbreviated approval process.

The mission consists of transporting Keiko (the killer whale), a water-holding tank, the actual whale cradle, and the attending personnel from Mexico City to Portland, Oregon. Water is stored in the holding tank during takeoff and landing, and is pumped into the cradle when the aircraft is in cruise. Structurally and operationally (for example, center of gravity limits), this flight will be conducted within normal Flight Manual limits.

Oregon Coast Aquarium has requested that a staff of 8 to 10 people be allowed to fly on the aircraft. The UPS Boeing 747-100 main deck is presently certified as a Class E compartment with five supernumeraries in the upper deck. This petition addresses the additional needs of as many as five more supernumeraries located in the upper deck during takeoff and landing with full access during cruise to the main deck. This petition is intended to address these personnel and the regulatory requirements for their safety. In a case by case review of FAR requirements, it will be shown that safety will not be adversely affected in any way.

The staff flying with Keiko meet the definition of supernumeraries provided in § 121.583(a)(4)(ii). This Section states, "a person necessary for ... the safe handling of animals." Meeting the terms of this Section provides relief for a number of FAR requirements which address passengers and the general public. Meeting the provisions of this definition also greatly simplifies the petition for exemption.

The following information will detail the effected Sections along with the associated discussion to outline UPS's intended action to instill an equivalent level of safety:

<u>Section 25.810</u>, <u>Emergency egress assist means and escape routes</u>. United Parcel Service's Boeing 747 aircraft have an escape slide on the Rl door on the main deck. There are also eight inertia reel descent devices in the cockpit in the overhead immediately next to the escape hatch. Additional escape paths are the main deck Ll door and through the Electrical and Equipment (E & E) Bay door. United Parcel Service requests that this requirement be exempted based on the fact that more than adequate egress exists given the existing configuration.

Section 121.309(c)(2), Hand fire extinguishers in Class E cargo compartment. This requirement is already being met. Transporting the whale with its associated equipment does not pose any threat to safety and thus no action is required.

<u>Section 121.311, Seats, safety belts, and shoulder harnesses</u>. The additional seats that are intended to be installed are typical TSO C-39 passenger double seat assemblies.

## Section 121.313, Miscellaneous equipment.

(f) Passenger/cockpit door. This requirement is not applicable when the provisions of § 121.583 for defining supernumeraries is applied. United Parcel Service aircraft have a door separating the cockpit from the upper deck area, but the lock has been disabled since this area is only ever occupied by UPS-employed supernumeraries. This is mentioned here for the purposes of relating to the next item.

(h) and (i). Request this requirement be exempted on the basis of the preceding discussion above. This will only come into play if a supernumerary is in the cockpit in an observer's seat instead of in the upper deck. Again, since this door cannot be locked it does not need a key.

## Section 121.317, Passenger information.

- (a) Passenger signs per § 25.791 must be illuminated.
- (b) "Fasten Seat Belt" sign.
- (c) "No Smoking" sign

This entire Section is not applicable, given the terms of § 121.583. Section 121.317(a) specifically refers to § 25.791-required placards. Based on this direct reference, the requirements of § 25.791 (for fasten seat belts and no smoking illuminated placards) are requested to be exempted.

As additional justification for (b), the aircraft does have operable "Fasten Seat Belt" signs. Depending on which aircraft is selected will determine whether existing (i.e., retained) "seat belt" signs are installed at every seat position. The small size of the group, as well as the close proximity to the flightcrew, will further enhance the ability of the flightcrew to communicate any instructions to the supernumeraries.

As additional justification for (c), should it be necessary, smoking is prohibited on all UPS flights. Supernumeraries are briefed that this is our corporate policy prior to every flight. Our non-UPS supernumeraries for this trip will be briefed well ahead of time as well.

## Section 121.318, Public address system and

## Section 121.319, Crew interphone system

Both these requirements are applicable on aircraft with more than 19 passengers. Even if supernumeraries were considered passengers in this instance, their total number still would not be enough to make this requirement applicable.

# Sections 121.329 and 121.333, Supplemental oxygen requirements

The existing requirement is presently satisfied by a system with drop-down masks fed from large bottles. For the additional seats, their oxygen needs will be intended to be met by portable bottles mounted on, or immediately next to, the seats. Oxygen quantity will be verified.

## Section 121.578, Cabin ozone concentration

An exemption for the analysis of this requirement is requested. This flight/mission is a one-time, charitable event with the possibility of ozone concentrations exceeding the prescribed levels being remote. The flight will be conducted at lower latitudes, and terminating in Portland, Oregon. This flight route is not one where high ozone concentrations have been a observed.

(FAA Note: The above text of the petition was supplemented by a chart whose value to the petition could not be determined, and in any event, it was administratively determined that its inclusion would require an excessive workload in the short time frame desired by the petitioner.)

The FAA finds, for good cause, that action on this petition should not be delayed by publication and comment procedures for the following reasons: (1) a grant of exemption would not set a precedent; (2) the requested relief is for one flight only, and; (3) a delay in acting on the petition would be disruptive and create a major economic burden for the petitioner and operator.

## The FAA's analysis/summary is as follows:

The main decks of 747-100 cargo aircraft are Class E cargo compartments. Section 25.857(e) permits Class E cargo compartments only on airplanes used only for the carriage of cargo. However, under the conditions of Boeing Exemption No. 1870D, under which UPS operates, the carriage of up to five supernumeraries is allowed on these aircraft, on the upper deck only. The proper focus of the current UPS petition is to address two areas of interest appropriate for this one-time flight:

- (1) The one-time carriage of up to five additional supernumeraries accommodated on the upper deck, from the maximum of five that is currently allowed by Exemption No. 1870D, for a maximum total of ten supernumeraries; and
- (2) For this one-time flight, supernumerary access to the main deck cargo compartment during cruise only, to attend to the needs of the live whale cargo.

Requirements and Conditions for these two areas of interest:

Regarding item (1), the FAA concurs with its understanding of the petitioner's intent to provide approved upper deck seating similar to that provided for existing supernumerary seating. With regard to "No Smoking" and "Fasten Seat Belts" signs and placards required by § 25.791, which are currently located with respect to existing supernumerary seating and may not be entirely visible to the additional five, the FAA concurs with its understanding of the petitioner's proposal that pre-flight briefings and inflight assistance will assure the requisite compliance with no smoking and seatbelt requirements. With regard to the "automatically presented" supplemental oxygen requirements of § 25.1447(c)(1), the FAA concurs with its understanding of the petitioner's proposal to install portable oxygen bottles, with masks attached, immediately available to each of the seated five additional supernumeraries. This concurrence is conditioned on a pre-flight briefing that includes instructions for the mutual assistance of all supernumeraries. With regard to the emergency egress assist means requirements of § 25.810, for the five additional supernumeraries on this one flight, the FAA concurs with its understanding of the petitioner's proposal that no additional escape means need be installed.

Item (2) is not addressed at all in existing Exemption No. 1870D, and therefore the following requirements and conditions are considered necessary to address the safety of up to ten supernumeraries who may be in the Class E cargo compartment during cruise (supernumeraries shall be required to be seated and restrained on the upper deck during takeoff and landing): (a) Some degree of handhold as intended by § 25.785(j) shall be provided along a pathway that shall be dedicated for use in traversing between the upper deck and the whale site. A pre-flight briefing shall include instructions to refrain from visiting other than the whale site on the main deck, and only as necessary. (b) A "No Smoking" placard shall be installed on the doorway leading to the main deck and at the whale site. (c) Each supernumerary shall wear on their person a portable oxygen bottle with attached mask while on the main deck. This apparatus may be the same as that installed at each seat in accordance with item (1) above. (d) There shall be a dedicated airplane decompression alarm audible at the whale site on the main deck, operable automatically with flightcrew manual action as backup, as a signal to don oxygen masks. This signal, and the accompanying donning procedures shall be included in the pre-flight briefing. (e) There shall be a dedicated "Return to Seats" annunciation at the whale site, either audible or visual, operable by the flightcrew, that is sufficiently noticeable to assure the return of

supernumeraries to the upper deck during turbulence or for landing. Instruction regarding this signal shall be included in the pre-flight briefing. (f) A means of emergency illumination in lieu of that required by § 25.812 shall be provided so that each supernumerary can safely engage in needed activities, as well as traverse the pathway, in the event that normal illumination is lost. A flashlight carried on each supernumerary's person would suffice.

In consideration of the foregoing, I find that a partial grant of exemption is in the public interest, and will not significantly affect the level of safety provided by the regulations. Therefore, pursuant to the authority contained in §§ 313(a) and 601(c) of the Federal Aviation Act of 1958, delegated to me by the Administrator (14 CFR 11.53), the petition of United Parcel Service to exempt them from compliance with §§ 25.791, 25.810, 25.812, 25.857(e), and 25.1447(c)(1) of the FAR only to the extent necessary to permit the one-time carriage of up to five more supernumeraries on the upper deck of a Boeing Model 747-100 cargo aircraft than the maximum of five that are currently allowed by Exemption No. 1870D, and to permit supernumerary access of the main deck cargo compartment, during cruise only, to attend to the needs of a live whale cargo only. This exemption is granted subject to compliance with the Requirements and Conditions identified in the FAA's analysis/summary section immediately above, is intended to be utilized only in conjunction with the conditions of Exemption No. 1870D, and terminates following the one-time flight.

Issued in Renton, Washington, on

Darrell M. Pederson Acting Manager Transport Airplane Directorate, Aircraft Certification Service